

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended): A silicon carbide sintered body manufactured by a reaction sintering method comprising:

dispersing silicon carbide powder in a solvent, followed by pouring an obtained ~~slurry~~-like-powder mixture slurry in a mold, further followed by drying to obtain a green body,

calcining the obtained green body under a vacuum atmosphere or an inert gas atmosphere at a temperature in the range of 1200°C to 1800°C to obtain a calcined body 1,

impregnating the obtained calcined body 1 with a carbon source,

calcining a calcined body 2 impregnated with a carbon source,

reaction sintering where the obtained calcined body 2 is impregnated with molten metallic silicon and free carbon in the calcined body 2 and silicon are reacted to obtain a silicon carbide body, and

heating in a vacuum atmosphere at a temperature in the range of 1450°C to 1700°C for 30 to 90 minutes to remove unreacted silicon,

wherein a porosity obtained from areas of silicon carbide particles and silicon particles in a sectional polished surface of the silicon carbide sintered body is greater than 15% and less than 30%, when the porosity (%) equals (the area of silicon particles/(the area of silicon particles + the area of silicon carbide particles)) × 100;

a content of ~~residual~~-silicon particles is less than 4% to a total volume of the silicon carbide sintered body;

a bending strength is greater than 200 Mpa; and

silicon particles are uniformly dispersed.

2. (original): The silicon carbide sintered body according to claim 1, wherein a total content of impurity elements other than silicon and carbon in the silicon carbide sintered body is less than 10 ppm.

3. (previously presented): The silicon carbide sintered body according to claim 1, wherein a content of nitrogen is greater than 150 ppm.

4. (withdrawn-currently amended): A manufacturing method of a silicon carbide sintered body that uses a reaction sintering method, comprising
dispersing silicon carbide powder in a solvent, followed by pouring an obtained ~~slurry-~~
~~like-powder mixture~~ slurry in a mold, further followed by drying to obtain a green body,
calcining the obtained green body under a vacuum atmosphere or an inert gas atmosphere at a temperature in the range of 1200°C to 1800°C to obtain a calcined body 1,
impregnating the obtained calcined body 1 with a carbon source,
calcining a calcined body 2 impregnated with a carbon source,
reaction sintering where the obtained calcined body 2 is impregnated with molten metallic silicon and free carbon in the calcined body 2 and silicon are reacted to obtain a silicon carbide body, and
heating in a vacuum atmosphere at a temperature in the range of 1450°C to 1700°C for 30 to 90 minutes to remove unreacted silicon.

5-6. (canceled).

7. (previously presented): The silicon carbide sintered body according to claim 1, wherein the porosity is greater than 15% and less than 20%.

8. (withdrawn): The manufacturing method of a silicon carbide sintered body according to claim 4, wherein in the heating to remove unreacted silicon a temperature is kept in the range of 1600°C to 1700°C for 50 to 70 minutes to remove the unreacted silicon.

9. (withdrawn): The manufacturing method of a silicon carbide sintered body according to claim 4, wherein the obtained silicon carbide sintered body has the bending strength of greater than 200 MPa.

10. (withdrawn): The manufacturing method of a silicon carbide sintered body according to claim 4, wherein the obtained silicon carbide sintered body has a structure where silicon particles are uniformly dispersed.

11. (withdrawn): The manufacturing method of a silicon carbide sintered body according to claim 4, wherein the obtained silicon carbide sintered body has the porosity of greater than 15% and less than 20%.